

RESPONSE UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/987,650

U.S.C. § 102 as being anticipated by Stern (previously of record). Claims 8-9 and 22 have been rejected under 35 U.S.C. § 103 as being unpatentable over Stern. Applicant submits the following arguments in traversal of the prior art rejections.

Applicant's invention relates to an image recording apparatus. Detailed descriptions of the background and exemplary embodiment of the invention are set forth in the Amendment dated October 9, 2003 at pages 11-12. Stern is described in the October 9 Amendment at page 12. Applicant refers the Examiner to these descriptions.

Further to these descriptions, Applicant would emphasize that Stern relates to a flat panel display device. A significant part of the invention is the creation of a light trap to set up total internal reflections for light injected into the plate. Col. 2, lines 4-7. In this connection, light is stored in the storage plate as a result of alignment of components in the light source such that light is injected at an angle with sufficient inclination for total internal reflection. The light is controllably released via taps along the length of the storage plate. Col. 7, lines 13-21. The light is tapped in order to enter the viewing field of the display. Col. 7, line 50 to col. 8, line 16.

The Examiner continues to maintain that Stern teaches each feature of independent claim 1. In particular, the Examiner maintains that the discussion of total internal reflection at column 6 of Stern does not relate to the disclosed light storage plate 12. However, Applicant would emphasize that Stern specifically designs the light source elements of Stern in order to make sure that the injected light meets the angle requirements (Snell's law) that results in total internal reflection. Therefore, total internal reflection is the object for the storage plate 12 in Stern.

To the extent the Examiner relies on Fig. 1 of Stern, Applicant would point out that any emissions from an end of the light source result from any residual beams not meeting Snell's law. In this event, the propagation would taper off quickly outside the device. Col. 6, lines 55-60. This would not correspond to the light incident at the first side of the guide. Therefore, the Examiner's position does not support the rejection.

The Examiner contends that the operations of the storage plate 12 are substantially the same as that in the waveguide 14 of Applicant's invention. This is incorrect. The waveguide propagates incident light from one side and emits the light at the other. In Stern, the incident light is propagated to meet Snell's law and thus does not emerge from the storage plate. The light emissions from the plate would effectively eliminate any light available to light the display device via the taps 28. Therefore, Stern does not teach or suggest emissions of the incident light from the second end surface as described by claim 1.

Because claims 4 and 9 include features similar to that set forth above for claim 1, claims 4 and 9 are also patentable for the reasons set forth above.

With further regard to claim 7, this claim describes a lens disposed between the light source and the first end of the waveguide. The Examiner cites collimators 20 of Stern as teaching this feature. However, the collimators are not disposed between the light source and the incident end. Rather the disposition comprises a collimator, the light source and the end surface. This arrangement physically differs from that claimed.

With further regard to claim 9, this claim describes a scanning device. The Examiner contends that it would be obvious to include a scanning device with the display device of Stern

in view of the switching capacity of the modulator in Stern. The rejection is not supportable on its face. Scanning and switching do not automatically lend themselves to interoperation with one another. Switching can occur without any scanning and thus does not implicate scanning in any way. The Examiner's rationale to include switching of Stern with any scanning mechanism is not supportable since the modulation itself would provide the desired output without any further scanning being necessary. Claim 9 is patentable, and claim 22 is patentable for similar reasons.

With further regard to claim 8, this claim describes focusing light emitted from the waveguide at a particular position. The Examiner contends that this feature is obvious in Stern. However, for the reasons set forth above in the discussion of claim 1, Stern does not include light emissions from the storage plate. Assuming *arguendo* that any emissions occur, the emissions would be so weak that they could not be focused. In addition, the bulk of the light used in the storage plate of Stern becomes channeled by taps that are not on the end face. Any light emitted from an end face has not useful purpose in Stern. Therefore, one skilled in the art would not be motivated to include a focusing lens at the end face emissions for any reason. Therefore, claim 8 is patentable for this additional reason.

With further regard to claims 23-24, these claims describe alignment of the guide with the flexible transmitting member. This feature is not taught in Stern. Referring to Fig. 8A, the driving devices 82 for the screen fall short of aligning with either edge of the storage plate 12. Therefore, flexible members that make up the driving device also fail to align with the edge of the plate. The Examiner's reliance on the partial views of Fig. 4A and 4B is not supported in view of the clear contradictory teachings in Fig. 8A.

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In view of the above, Applicant submits that claims 1-9 and 19-24 are in condition for allowance. Therefore it is respectfully requested that the subject application be passed to issue at the earliest possible time. The Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

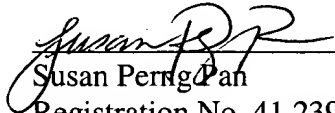
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